

In the Claims:

In accordance with 37 CFR § 1.121, please substitute for original claims 8, 10, 11, 15, 16, 17, 18, 19 and 20, the following rewritten versions of the same claims, as amended. The changes are shown explicitly in the attached "Marked Up Version Showing Changes Made."

Please amend the following claims.

C1 8. (Thrice Amended) A slidable member as claimed in Claim 15, wherein said hard carbon-based film is formed of a material selected from the group consisting of amorphous carbon, and diamond like carbon.

10. (Twice Amended) A slidable member used in contact with lubricating oil for an internal combustion engine, comprising:

C2 a substrate; and

a hard carbon-based film coated on a surface of said substrate, by a process selected from the group consisting of a carbon ion beam process without using hydrocarbon plasma at least during formation of the hard carbon-based film, an ion plating process, and a sputtering process.

C3 11. (Thrice Amended) A slidable member as claimed in Claim 15, wherein said hard carbon-based film is formed by one of a carbon ion beam process, an ion plating process, and a sputtering process.

15. (Amended) A slidable member in combination with lubricating oil for an internal combustion engine in contact with said slidable member, said slidable member comprising:

C4 a substrate; and

a hard carbon-based film coated on a surface of said substrate, said hard carbon-based film having a surface section which contains at least one of nitrogen and oxygen in an amount ranging from 0.5 to 30 at%.

16. (Amended) A system comprising:

a slidable member including a substrate, and a hard carbon-based film coated on a surface of said substrate, said hard carbon-based film having a surface section which contains at least one of nitrogen and oxygen in an amount ranging from 0.5 to 30 at%; and

lubricating oil for an internal combustion engine in contact with said slidable member.

17. (Amended) A valve operating system comprising:

a valve lifter connected to a valve, driven by a cam;

an adjusting shim disposed on said valve lifter and located between said valve lifter and the cam, said adjusting shim including a substrate, and a hard carbon-based film coated on a surface of said substrate, the hard carbon-based film having a surface section which contains at least one of nitrogen and oxygen in an amount ranging from 0.5 to 30 at%, the surface section of the hard carbon-based film being in slidable contact with the cam; and

lubricating oil for an internal combustion engine present between the surface section of the hard carbon-based film of said adjusting shim and the cam.

18. (Amended) A slidable member used in contact with lubricating oil for an internal combustion engine, comprising:

a substrate; and

a hard carbon-based film coated on a surface of said substrate, said hard carbon-based film having a surface section which contains at least one of nitrogen and oxygen in an amount ranging from 0.5 to 30 at%, said hard carbon-based film being coated on the surface of said substrate by a process selected from the group consisting of a carbon ion beam process without using hydrocarbon plasma at least during formation of said hard carbon-based film, an ion plating process, and a sputtering process.

19. (Amended) A slidable member as claimed in Claim 15, wherein said hard carbon-based film is coated on the surface of said substrate by a process selected from the group consisting of a carbon ion beam process without using hydrocarbon plasma at least during formation of said hard carbon-based film, an ion plating process, and a sputtering process.

20. (Amended) A system as claimed in Claim 16, wherein said hard carbon-based film is coated on the surface of said substrate by a process selected from the group consisting of a carbon ion beam process without using hydrocarbon plasma at least during formation of said hard carbon-based film, an ion plating process, and a sputtering process.

Please add the following new claims:

22. (New) A method of using a slidable member in contact with lubricating oil for an internal combustion engine, said slidable member comprising a substrate, and a hard carbon-based film coated on a surface of said substrate by one selected from the group consisting of a carbon ion beam process without using hydrocarbon plasma at least during formation of the hard carbon-based film, an ion plating process, and a sputtering process.

23. (New) A method of using a slidable member in contact with lubricating oil for an internal combustion engine, said slidable member comprising a substrate, and a hard carbon-based film coated on a surface of said substrate, said hard carbon-based film having a surface section which contains at least one of nitrogen and oxygen in an amount ranging from 0.5 to 30 at%.

24. (New) A method of using a valve operating system in presence of lubricating oil for an internal combustion engine, said valve operating system comprising a valve lifter connected to a valve, driven by a cam, an adjusting shim disposed on said valve lifter and located between said valve lifter and the cam, said adjusting shim including a substrate, and a hard carbon-based film coated on a surface of said substrate, the hard carbon-based film having a surface section which contains at least

one of nitrogen and oxygen in an amount ranging from 0.5 to 30 at%, the surface section of the hard carbon-based film being in slidable contact with the cam, the lubricating oil being present between the surface section of the hard carbon-based film of said adjusting shim and the cam.

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25. (New) A method of using a slidable member in contact with lubricating oil, said slidable member comprising a substrate and a hard carbon-based film coated on a surface of said substrate, said hard carbon-based film having a surface section which contains at least one of nitrogen and oxygen in an amount ranging from 0.5 to 30 at%, said hard carbon-based film being coated on the surface of said substrate by a process selected from the group consisting of a carbon ion beam process without using hydrocarbon plasma at least during formation of said hard carbon-based film, an ion plating process, and a sputtering process.
